

REMARKS

Claim rejection 35 USC §112

Claim 1 has been amended as follows:

The confusion related to the term "lifting device" is believed clarified. The lifting device is the device which is mounted on an implement carrier such as a forklift truck or a crane. Furthermore, claim 1 has been rewritten such that the limitation "the device" in line 16-17 of former claim 1 is not part of the amended claim 1.

We have limited claim 1 by stating that the implement carrier comprises a fork structure which is telescopic. Basis can be found in and line 26-27 in the description of the application (WO 2005/000730 A1). A telescopic fork structure is also clearly shown in the figures.

The securing device has been limited to permanent magnets. Basis can be found in former claim 3 and page 2, line 20-21 of the description (WO 2005/000730 A1).

In former claim 1 the trigger was defined as a guide part. The reference to the trigger is therefore unnecessary and has been removed from the amended claim 1.

We have further included the limitation that the lifting device comprises "a fixed connection between the stationary part of the fork structure and the guide part such that the fixed connection causes the guide part to rotate when the fork structure is telescoped". Basis can be found on page 3, line 26-30 of the description (WO 2005/000730 A1) or former claim 5. It is also shown in the figures.

The expression "...to a distance which is sufficient for the forces between the object and the securing device to decrease..." has been amended to "...to a distance beyond the effective range of influence of the at least one permanent magnet...". Basis can be found on page 3, line 12-15 of the description (WO 2005/000730 A1).

Claims 3, 5 and 7 have been cancelled.

There are two new claims. Basis for claim 10 can found many places, for example line 28 on page 3 or line 5-6 on page 5 in the description (WO 2005/000730 A1). Bases for claim 11 can be found for example on page 5, line 26-27 in the description (WO 2005/000730 A1). The features of claim 10 and 11 are also found in the figures.

Claim rejections 35 USC §103

Our comments to the cited publication in relation to the invention as defined in the amended claim 1 are as follows:

Kristensen (US 6024529) discloses a lifting device which is used with a fork lift truck. The lifting device comprises suction cups or plates which hold an object to be lifted by using vacuum. The object is released by removing the vacuum in the suction cups/plates. For that

purpose the lifting device is provided with a controllable stop and release valve (see col. 2, line 10-13, line 20-22, col. 3, line 44-47 or claim 1 and claim 8.

Kristensen does not disclose a lifting device including permanent magnets for lifting an object.

Furthermore, Kristensen does not disclose that the lifting device may be used with a telescopic forkstructure where the telescopic function is used to operate a release mechanism for releasing the object being held/lifted.

Furthermore, Kristensen does not disclose a releasing mechanism comprising a rotatable guide part which is used to release the object being held by the permanent magnets by physically separating the object from the permanent magnets.

Furthermore, Kristensen does not disclose a fixed connection between the stationary part of the fork structure and the guide part such that the fixed connection causes a guide part of a releasing mechanism to rotate when the fork structure is telescoped.

We would like to point out that a skilled person would not contemplate using a releasing mechanism which physically separates the object and the suction cups/plates. The only natural way to release an object held by suction cups/plates would be to remove the vacuum in the suction cups/plates, normally by operating a valve device as disclosed in Kristensen. For that reason, no other options for releasing mechanisms than the stop and release valve is given by Kristensen.

Friedrich (US 6471273 B1) discloses a lifting magnet with a roller cam release mechanism. The magnet comprises a housing with a releasing mechanism comprising a handle. When the magnet is to be released from a work surface, the handle is manually rotated downward toward the work surface (see col. 3, line 42-45). In other words, Friedrich only teaches a manually operated releasing mechanism which is operated by pushing a handle towards the surface of the object to be released.

Condrey (US 5590839) discloses a device on a tractor for holding and pulling a cart 23. The device has the same function as a conventional hook which is standard equipment on tractors, as the one shown in figure 3. In order to pull a cart using the device disclosed in figure 4, the cart comprises a vertical bale 22c which is received in the device shown in figure 4. The device comprises a rotatable latch 77 with a rearwardly extending arm 77a. The arm 77a has on one side a camming surface 77b which guides the bale 22c into a latched position. On the other side of arm 77a, the arm 77a is provided with an engaging surface 77c which engages and pulls the cart when the tractor is moving. This is explained in col. 8, line 47-64 in the description.

The latch 77 is connected to a lanyard 82 through a vertical shaft 73 with a lever 81 to which the lanyard is attached. The latch 77 is rotated by the operator of the tractor by pulling the lanyard, col. 8, line 65 – col. 9, line 2. No other way of operating the lanyard 82 than manually pulling it is disclosed in Condrey.

Furthermore, when the operator pulls the lanyard, arm 77a rotates sideways and backwards thereby moving the engaging surface 77 such that the cart 23 may be released from the tractor. We would like to point out that the latch 77, does not in any way push the cart as it is rotated by the operator pulling the lanyard. Thus, the cart will only be released if the

tractor moves forward as the lanyard is being pulled by the operator such that the bale comes out of the latching position. If the operator just pulls the lanyard and then let go of the lanyard, the cart will still be held in the latching position.

Therefore, Condrey does not teach a releasing mechanism comprising a guide part physically pushing on the object to be released when the object is to be released. Furthermore, Condrey teaches only manually operated releasing lines.

It should also be noted that combining the releasing mechanism disclosed in Friedrich and the releasing mechanism disclosed in Condrey is physically impossible. Friedrich teaches that the releasing mechanism, i.e. the handle, is operated by pushing the handle towards the working surface. The lanyard disclosed in Condrey can only be used for pulling on an object (i.e. a release mechanism) since a line is unable to take any compressive force or tension. But pulling the handle of Friedrich will in fact engage the magnet with the working force, instead of releasing the magnet. Hence, the teaching of Friedrich and Condrey cannot be combined.

Finally none of the cited publications discloses a lifting device being adapted for use with an implement carrier (forklift, crane etc.) with a telescopic fork structure where the telescopic fork structure is used to operate the releasing mechanism when the object is to be released from the permanent magnets of the lifting device. On page 3, line 26-27 in the description (WO 2005/000730 A1), it is stated that "If the device according to the invention is attached to an implement carrier such as a truck or the like with telescopic fork, a fixed connection can be established,...". The applicant does not claim that forklifts with a telescopic fork structure did not exist when the invention was made, but using the telescopic function of the fork structure to operate the releasing mechanism was not known, at least not from the cited publications.

On this background, we believe that the invention as defined in the amended claim 1 would have been non-obvious to a skilled person in the art at time when the invention was made.